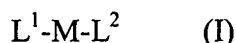


AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application

Listing of Claims:

Claim 1 (original): Transition metal complex of the formula (I)

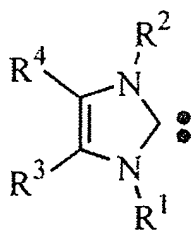


where

M is a nickel, palladium or platinum atom,

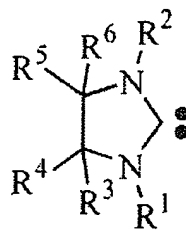
L¹ is a ligand having at least one electron-deficient olefinic double bond and

L² is a monodentate carbene ligand of the formula (II) or (III)



5

(II)



(III)

in which

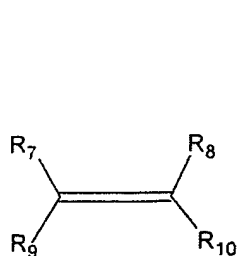
the R¹ and R² radicals are each independently an alkyl radical including a cycloalkyl radical, an aryl radical or heteroaryl radical, each of which may optionally be substituted, and the R³ to R⁶ radicals are each independently selected from a hydrogen or halogen atom, -NO₂, -CN, -COOH, -CHO, -SO₃H, -SO₂-(C₁-C₈)alkyl, -SO-(C₁-C₈)alkyl, -NH-(C₁-C₈)alkyl, -N((C₁-C₈)alkyl)₂, -NHCO-(C₁-C₄)alkyl, -CF₃, -COO-(C₁-C₈)alkyl, -CONH₂, -CO-(C₁-C₈)alkyl, -NHCOH, -NH-COO-(C₁-C₄)alkyl, -CO-phenyl, -COO-phenyl, -CH=CH-CO₂-(C₁-C₈)alkyl, -CH=CHCO₂H, -PO(phenyl)₂, -PO((C₁-C₈)alkyl)₂,

an optionally substituted alkyl radical, an optionally substituted aryl radical, or an optionally substituted heteroaryl radical, or at least two of the R^3 to R^6 radicals together with the carbon atoms to which they are bonded form a 4- to 12-membered ring.

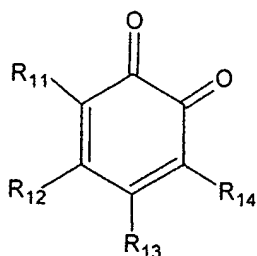
Claim 2 (original): Transition metal complex according to Claim 1 where M is Pd.

Claim 3 (currently amended): Transition metal complex according to Claim 1 [[or 2]] where the electron-deficient olefinic double bond in L^1 bears at least one electron-withdrawing substituent selected from a cyano group, an aldehyde group, a ketyl radical, a carboxylic acid group, a carboxylic ester radical, carboxamide radical or N-substituted carboxamide radical.

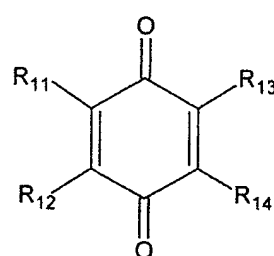
Claim 4 (currently amended): Transition metal complex according to ~~one of Claims 1 to 3~~ Claim 1 where L^1 is selected from compounds of the formulae (IV), (V) or (VI)



(IV)



(V)



(VI)

in which

R^7 is selected from -CN, -COH, -COR¹⁵, -COOH, -COOR¹⁵, -CONHR¹⁵, and -CONR¹⁵R¹⁶, where R^{15} and R^{16} are each independently a hydrogen atom, a C₁-C₆ alkyl radical or C₂-C₆ alkenyl radical; and

R^8 , R^9 and R^{10} are each independently selected from a hydrogen atom, a C₁-C₈ alkyl radical, a C₂-C₈ alkenyl radical, a halogen atom, a hydroxyl group, -CN, -COH, -COR¹⁵, -COOH, -COOR¹⁵, -CONHR¹⁵ and -CONR¹⁵R¹⁶, where R^{15} and R^{16} are each as defined

above,

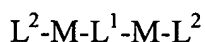
or two suitable R^7 , R^8 , R^9 , R^{10} , R^{15} and R^{16} radicals together with the atoms to which they are bonded form a 5- to 8-membered ring,

R^{11} , R^{12} , R^{13} and R^{14} are each independently selected from a hydrogen atom, a C_1 - C_8 alkyl radical, a halogen atom or -CN, or in each case two of the R^{11} to R^{14} substituents together with the atoms to which they are bonded form a 5- to 8-membered ring.

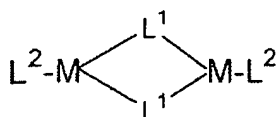
Claim 5 (currently amended): Transition metal complex according to ~~one of Claims 1 to 4~~ Claim 1 where L^1 is selected from acrylic acid, acrylic esters, acrylonitrile, methacrylic acid, methacrylic esters, methacrylonitrile, benzoquinone, 2-methyl-p-benzoquinone, 2,5-dimethyl-p-benzoquinone, 2,3-dichloro-5,6-dicyano-p-benzoquinone, naphthoquinone, anthraquinone, maleic anhydride, maleimide, maleic acid, maleic esters, fumaric acid, fumaric esters, metal salts of the carboxylic acids mentioned, or tetracyanoethene.

Claim 6 (currently amended): Transition metal complex according to ~~one of Claims 1 to 5~~ Claim 1 where L^2 is selected from 1,3-bis(2,4,6-trimethylphenyl)imidazolinylidene, 1,3-bis(2,6-dimethylphenyl)imidazolinylidene, 1,3-bis(1-adamantyl)imidazolinylidene, 1,3-bis(tert-butyl)imidazolinylidene, 1,3-bis(cyclohexyl)imidazolinylidene, 1,3-bis(o-tolyl)imidazolinylidene, 1,3-bis(2,6-diisopropyl-4-methylphenyl)imidazolinylidene and 1,3-bis(2,6-diisopropylphenyl)imidazolinylidene and 1,3-bis(2,6-diisopropylphenyl)imidazolinylidene, 1,3-bis(2,4,6-trimethylphenyl)-4,5-dihydroimidazolinylidene, 1,3-bis-(2,6-dimethylphenyl)-4,5-dihydroimidazolinylidene, 1,3-bis(1-adamantyl)-4,5-dihydroimidazolinylidene, 1,3-bis-tert-butyl)-4,5-dihydroimidazolinylidene, 1,3-bis(cyclohexyl)-4,5-dihydroimidazolinylidene, 1,3-bis(o-tolyl)-4,5-dihydroimidazolinylidene, 1,3-bis(2,6-diisopropyl-4-methylphenyl)-4,5-dihydroimidazolinylidene and 1,3-bis(2,6-diisopropylphenyl)-4,5-dihydroimidazolinylidene.

Claim 7 (currently amended): Transition metal complex of the following structure (Ia) or (Ib)



(Ia)



(Ib)

where L^1 , L^2 and M are each independently as defined in ~~one of Claims 1 to 6~~ Claim 1, with the proviso that the bridging L^1 radical is selected in such a way that it has a further coordination site for an Ni, Pt or Pd atom.

Claim 8 (currently amended): Process for preparing a transition metal complex according to Claim 1 ~~one of Claims 1 to 7~~, comprising the contacting of the ligand L^2 with a metal complex which contains the fragment L^1-M and an additional ligand which can be displaced readily by the ligand L^2 , where L^1 , M and L^2 are each as defined in Claims 1 to 7.

Claim 9 (currently amended): Use of a transition metal complex according to ~~one of Claims 1 to 7~~ Claim 1 in the homogeneous catalysis of an organic reaction.

Claim 10 (original): Use according to Claim 9, wherein the organic reaction is selected from olefinations, arylations, alkylations, ketone arylations, aminations, etherifications, thiolizations, silylations, carbonylations, cyanations or alkynylation of aryl-X compounds or vinyl-X compounds, where X is a leaving group, or of olefinic compounds, or from hydrosilylations of olefins or alkynes or ketones, carbonylations of olefins, di- and oligomerizations of olefins, telomerization of dienes or cross-couplings with organometallic reagents and other transition metal-catalysed coupling reactions.